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Author Affiliation:

¹Lecturer, Department of Sociology, Bangladesh University, Dhaka-1207, Bangladesh

²Professor, University of Rajshahi, Rajshahi-6205, Bangladesh

*Corresponding author

Professor, University of Rajshahi, Rajshahi-6205, Bangladesh
Email: jahanboksh@gmail.com

Contact List

Faisal Alam faisal.alam@bu.edu.bd
Jahan Boksh Moral jahanboksh@gmail.com

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Exploring media-driven dynamics of Adolescent Dietary Behavior: An in-depth analysis of food choice patterns and influences

MD Faisal Alam¹, Jahan Boksh Moral^{2*}

ABSTRACT

This study delves into the intricate realm of adolescent dietary behaviors, driven primarily by the pervasive influence of media. Adolescent, known for their susceptibility to media-driven preferences, exhibit complex processes in adapting and selecting their diets. By Employing a survey-based methodology, this research uncovers the profound sway of media on adolescent dietary preferences attributed to individual behavioral determinants. Adolescents gravitate towards familiar, gustatorily pleasing foods, aligning preferences with peers and media personas. Maternal guidance endorsing traditional cuisine while cautioning against foreign foods significantly impacts their choices. Paradoxically, despite occasional discomfort, adolescent favor fast food, especially females. This study underscores the imperative nature of dietary management strategies promoting diversity and social influences in shaping adolescent culinary preferences, highlighting the importance of wholesome food consumption for their nutritional well-being and quality of life.

Keywords: Adolescent Dietary Choices, Mass Media Influence, Food Choice Behavior, Adolescent Food Preferences, Media Literacy and Health Awareness.

1. INTRODUCTION

The influence of mass media on adolescent dietary preferences in Keraniganj has evolved significantly. These adolescents are exposed to compelling television advertisements promoting global cuisine over traditional meals, favoring options like KFC over homemade dishes. The allure of internationally recognized foods, often enjoyed by their screen idols, intensifies their desire for such fare. This shift in food choices is driven not only by cinematic portrayals but also by persuasive advertisements, playing a crucial role in reshaping adolescent eating habits at Keraniganj in Bangladesh.

This research focuses on the youth population of Keraniganj Upazila within Dhaka, Bangladesh. It centres on adolescents attending E. Haque Coaching Center, approximately 300 adolescents from classes 8 to 12, from diverse areas

within the Upazila. Conducted in the Keraniganj vicinity of Dhaka city, the study employs a survey method to explore the correlation between mass media exposure and teenage dietary choices. A structured questionnaire facilitates data collection, utilizing a probability sampling approach, specifically simple random sampling, to ensure sample representativeness.

The Conceptualization of Influence of Mass Media on Food Choice of Adolescent

This literature review presents a dual focus, exploring the intricacies of food choice behavior and the pervasive influence of mass media. It provides concise yet comprehensive definitions of food choice behavior, tracing its malleable nature from childhood to adolescence. The review strategically employs selected theoretical frameworks to underpin the study. It then delves into the transformative potential of mass media on food preferences among impressionable adolescents, discussing its theoretical underpinnings and consequential impact on adolescent psychological and physical well-being. Despite limitations related to the class-based sample, the literature review is valuable for elucidating the influence of mass media on immature dietary habits (Sobal et al., 2006; Lewin, 1943; Marx and Cummings, 2007; Gedrich, 2003; Babicz-Zielinska, 2006; Shelton and Richeson, 2005; Drewnowski and Almiron-Roig, 2010).

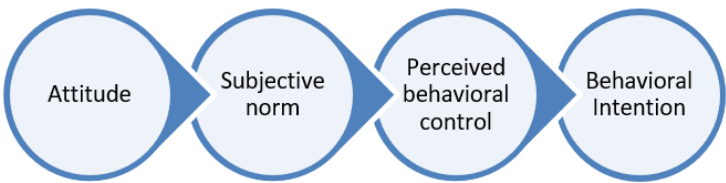


Figure 1 The relation between the cognition influences

This study acknowledges the foundation of numerous theoretical approaches and models in food habit choices, predominantly from Western societies. While recognizing their Western origins, this research endeavors to adapt these theories to the societal framework under examination (Figure 1). The adolescent pivotal model, the Physical Model, intricately illustrates the interplay between cognition and influencing factors, encompassing risk perception, cost-benefit analysis, self-efficacy, and adherence to social norms. This study also draws upon key theories, including the Theory of Reasoned Action, emphasizing attitudes and subjective norms as determinants of behavior (Ajzen, 1980). Another well-known theory, the Theory of Planned Behavior, focuses on the connection between intention and behavior and includes components like preference and social pressure (Ajzen, 1991). These theories collectively illuminate the dynamic nature of planned behavior change over time (Ajzen, 2001).

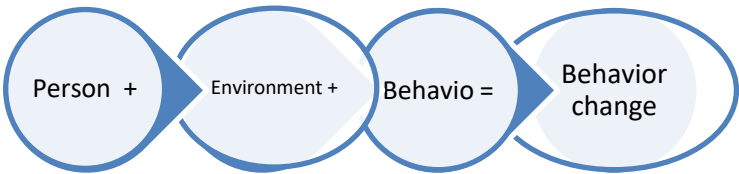


Figure 2 Indicates the relationship between environmental behaviour and the different personal, individual, and social factors.

Social Cognitive Theory (SCT) elucidates the intricate interplay between environmental, individual, and social factors in shaping behavior (Figure 2). It posits that individual cognitions profoundly influence human motivation and actions (Bandura, 1986). SCT highlights various personal factors, including demographics, emotional states, self-efficacy, expectations, self-regulation, observational learning, and reinforcement. These components are pivotal in facilitating behavioral change and adolescent response to change. Additionally, SCT underscores the profound impact of the environment in molding and governing our behavior (Glanz and Bishop, 2010).



Figure 3 The interwoven relationship between individuals and their environment.

Socio-ecological models have gained traction in food choice behavior research due to rising obesity rates, shifting focus from individual-centric analysis to a holistic examination of health behaviors (Stokols, 1996). These models recognize the multifaceted influences spanning intrapersonal, interpersonal, organizational, community, physical, environmental, and policy domains (Sallis et al., 2008) (Figure 3). The ecological system theory by Bronfenbrenner emphasizes life course influences, influencers, and personal food systems (Sobal et al., 2006). The pervasive media influence, both positive and negative, has garnered increased scrutiny, with its tangible power to induce belief changes or reinforcement (Valkenburg et al., 2016). The media impact is elucidated through theoretical frameworks such as the Social Learning Theory of Bandura, Displacement Theory, and the Message Interpretation Process model of Austin. These models explain how media messages subconsciously reshape Adolescent attitudes and behaviors (Arnett, 2007).

The review, drawing from diverse sources and foreign studies, underscores the media's profound psychosocial impact on Adolescent food choices, akin to the influence of smoking. Notably, the Displacement Theory is supported, highlighting TV advertisements as significant instigators of Adolescent dietary preferences. These findings align with the Social Learning Theory and Message Interpretation Process model, where advertisers strategically employ popular characters and narratives to shape food preferences. Moreover, international research reveals a global trend wherein childhood food choices accelerate with increased media exposure, potentially leading to various health issues (Lajous et al., 2010). Although there is caution due to potential reporting inaccuracies and extraneous variables, the study emphasizes identifying culturally effective strategies to shape adolescent natural food choices influenced by media depictions (Kearney et al., 2005).

Theoretical Framework of this Study

This study employs a multidimensional theoretical approach, incorporating the Social Learning Theory of Bandura, the Displacement Theory of Moses, and the Message Interpretation Process model of Austin to examine the intricate effects of media on behavior comprehensively. Dependency theory, formulated by Ball-Rokeach and DeFleur, explores the media-audience-social system relationship, highlighting cognitive, affective, and behavioral impacts. The study underscores the significant influence of mass media on adolescent food habits, emphasizing cultural and contextual factors. Notably, there needs to be more research regarding food habits and media influence in Karanigong, which could inform healthcare and policy recommendations.

2. METHODOLOGY OF THE STUDY

This chapter outlines the methodological approach for studying the impact of mass media on adolescent dietary choices. It employs a survey methodology with a descriptive, narrative, and quantitative framework, utilizing structured and semi-structured questionnaires. A cross-sectional design facilitates the exploration of diverse child populations influenced by mass media in their food preferences. The research aims to reveal mass media's profound influence on dietary choices among Keraniganj adolescents, particularly television. It quantifies this impact, explores media types, and assesses motivations, parental roles, and outcomes while identifying contributing factors. The study also investigates the roles of governmental bodies, NGOs, and stakeholders in monitoring the interplay between mass media and adolescent dietary decisions.

The table illustrates the sample distribution across different classes among the surveyed adolescents. It demonstrates the frequency and percentage distribution, indicating that class 8 and 9 adolescents comprise 23.1% and 21.5% of the sample, respectively. Class 10, 11, and 12 adolescents constitute 19.2%, 18.5%, and 17.7%, respectively (Table 1). The cumulative percentages show the progressive accumulation of adolescents from lower to upper classes, summing up to 130 adolescents.

Table 1 The breakdown of the sample by class

| The breakdown of the sample by class | | | | | |
|--------------------------------------|----------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Class 8 | 30 | 23.1 | 23.1 | 23.1 |
| | Class 9 | 28 | 21.5 | 21.5 | 44.6 |
| | Class 10 | 25 | 19.2 | 19.2 | 63.8 |
| | Class 11 | 24 | 18.5 | 18.5 | 82.3 |
| | Class 12 | 23 | 17.7 | 17.7 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

Table 2 The breakdown of the sample by gender

| The breakdown of the sample by gender | | | | | |
|---------------------------------------|--------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Male | 63 | 48.5 | 48.5 | 48.5 |
| | Female | 67 | 51.5 | 51.5 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

The gender distribution within the sample, presenting frequency and percentage breakdowns, is illustrated in (Table 2). The data indicate that 48.5% of adolescents are male, while 51.5% are female, totaling 130 adolescents. The study employed a quantitative research design with a structured survey method and a flexible questionnaire. Preparatory steps included title selection, research question formulation, sample size determination, literature review, and research notebook maintenance. Ethical considerations were adhered to, including obtaining consent from parents and children.

Data collection involved building rapport with adolescents using various note-taking methods. Quantitative data analysis was conducted using SPSS software, involving data familiarization, review, transcription, and thematic identification (Mashali et al., 2022). Challenges included financial constraints, time limitations, and the need for extensive explanation due to the adolescent respondents, but the experience was motivating for further research pursuits.

3. ANALYSIS, FINDINGS & DISCUSSION

The influence of electronic media on adolescents, particularly in content, is a subject of concern. Today, media wields significant persuasive power and often imparts negative lessons. Television, music, video games, and various modern gadgets have enabled children to distort reality. In many cases, the media serves as an influential parental figure. This discussion focuses primarily on the impact of watching television on adolescent food choices. SPSS software conducts data analysis for this research and provides statistical insights and findings, presented below, along with relevant diagrams and descriptions.

Key insights of revealing the impact of mass media on adolescent dietary choices

We selected 300 adolescents for interviews. Still, eventually, I picked 130 adolescents from the E. Haque Coaching Center in Zinzira, Keranigong, spanning from class 8 to class 12, with ages ranging from 13 to 17 years. The research sample encompasses both male and female adolescents. The data indicates that 51.5% of adolescents are female, while 48.5% are male, as illustrated in the graph (Figure 4).

In this insightful observation (Figure 5), approximately 10% of adolescents abstain from watching TV, while the overwhelming majority, constituting 90% of the sample, engage in regular television consumption. This notable prevalence of TV viewership implies a substantial investment of time in this activity, indicating that a significant portion of the surveyed population dedicates considerable hours to habitual TV watching (Garber, 1995). To delve further into this phenomenon, exploring the implications and potential consequences of such extensive TV exposure on adolescent lifestyles and behaviors is essential.

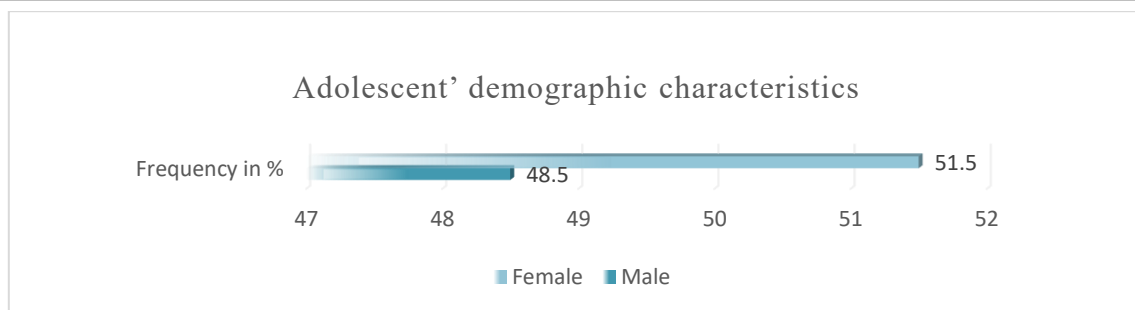


Figure 4 The Adolescent demographic characteristics

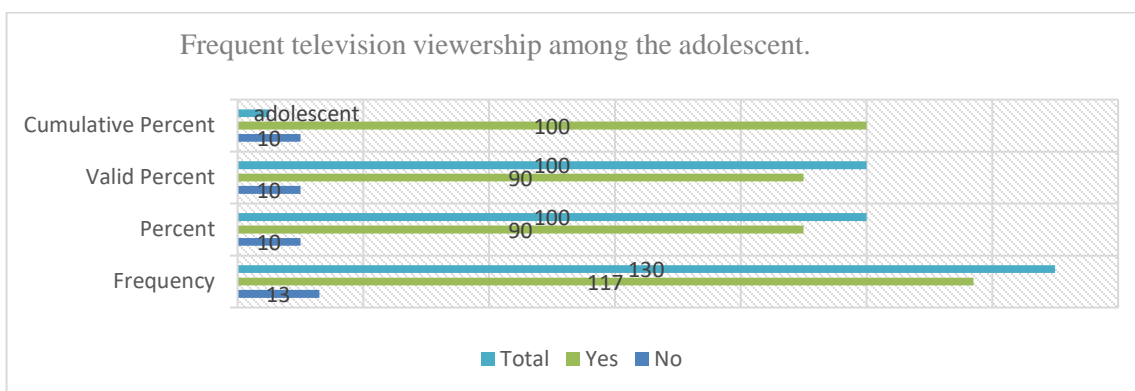


Figure 5 Frequent television viewership among the adolescent.

Table 3 The regular duration of TV watching by the adolescent

| The regular duration of TV watching by the adolescent | | | | | |
|---|------------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Less than 1 hour | 47 | 36.2 | 36.4 | 36.4 |
| | 1 - 2 hours | 43 | 33.1 | 33.3 | 69.8 |
| | 3 - 4 hours | 13 | 10.0 | 10.1 | 79.8 |
| | 4 - 5 hours | 17 | 13.1 | 13.2 | 93.0 |
| | Five hours+ | 6 | 4.6 | 4.7 | 97.7 |
| | Others | 3 | 2.3 | 2.3 | 100.0 |
| | Total | 129 | 99.2 | 100.0 | - |
| Missing | - | 1 | .8 | - | - |
| Total | | 130 | 100.0 | - | - |

The table presents a detailed breakdown of adolescent chronic television consumption durations, highlighting that 36.4% of adolescents engage in daily TV viewing for less than one hour. Approximately 33.3% allocate 1-2 hours to this activity, while 10.1% devote 3-4 hours. Moreover, 13.2% affirm watching TV for 4-5 hours, and 4.7% exceed 5 hours. A minor fraction of 2.3% falls under the other category (Table 3). The dataset includes responses from 129 adolescents, with just one missing response. These findings offer valuable insights into the prevalent television consumption patterns among the surveyed adolescent cohort.

Furthermore, the data highlights that a significant percentage of adolescents, 36.2%, regularly watch TV for less than an hour daily, with 33.3% dedicating 1-2 hours. This consistent TV viewing has a discernible influence on their dietary preferences. Figure 6 underscores that the majority of adolescents, 69.9%, favor traditional foods such as rice, bread, and cakes, while 31.1% prefer foreign foods like pizza, burgers, noodles, fried meat, fried rice, soft drinks, and more. This change reveals a notable shift among teenage adolescents, with an increasing inclination toward foreign cuisine for breakfast, supplanting traditional options.

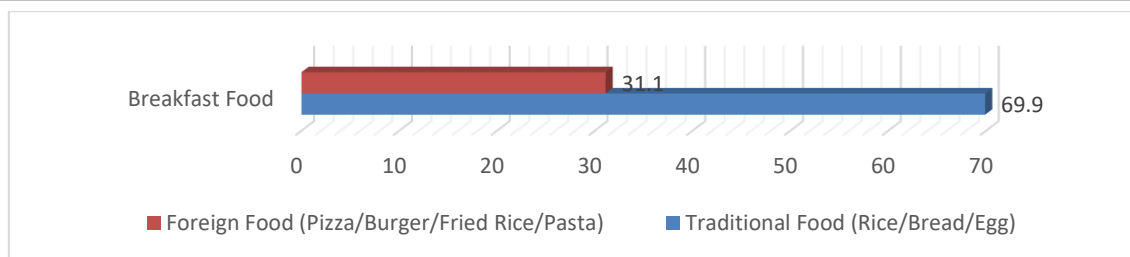


Figure 6 The breakfast foods predominantly selected by the adolescent.

Table 4 Acquisition of information regarding foreign cuisine through television.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | Yes | 124 | 95.4 | 95.4 | 95.4 |
| | No | 6 | 4.6 | 4.6 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

This data table provides insights into how the adolescents have assimilated knowledge regarding foreign cuisine through television exposure. A substantial majority, comprising 95.4% of the surveyed adolescent, affirmed their acquisition of such knowledge from this medium, while a small minority of 4.6% indicated alternative sources (Table 4). These findings underscore the pivotal role of television as a prominent information conduit for instilling awareness of foreign gastronomic traditions among the examined cohort.

Table 5 The adolescent population favoured the predominant food selections during lunch and dinner.

| The predominant food selections favored by the adolescent population during lunch and dinner. | | | | | |
|---|------------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Traditional Food | 109 | 83.8 | 83.8 | 83.8 |
| | Foreign Food | 17 | 13.1 | 13.1 | 96.9 |
| | Others | 4 | 3.1 | 3.1 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

The prevailing gastronomic preferences within the adolescent cohort, specifically in the context of their lunch and dinner choices, are illuminated in (Table 5). The data showcases a pronounced bias, as evidenced by 83.8% of adolescents favoring traditional fare for these meals. Conversely, 13.1% of adolescents choose foreign cuisine in their lunch and dinner selections. A fractional subset, constituting 3.1%, pertains to the other category. These statistics underscore the overwhelming prevalence of traditional culinary choices among the surveyed adolescents, with a notable but comparatively more minor inclination towards foreign gastronomic options during these mealtime occasions.

Table 6 The rationale behind the selection of foreign cuisine.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------|-----------|---------|---------------|--------------------|
| Valid | Testy more | 97 | 74.6 | 74.6 | 74.6 |
| | Easy to find | 16 | 12.3 | 12.3 | 86.9 |
| | Shown in TV | 11 | 8.5 | 8.5 | 95.4 |
| | Others | 6 | 4.6 | 4.6 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

An analysis of the factors influencing the selection of foreign cuisine by adolescents is presented in (Table 6). The data indicates that a substantial proportion, precisely 74.6% of adolescents, tend to favor fast food due to its appealing taste compared to traditional options. Furthermore, approximately 12.3% of adolescents opt for foreign dishes because they are readily available, making them a convenient choice. Additionally, television programs influence 8.5% of adolescents to showcase foreign cuisine, contributing to their food choices. A minor fraction, constituting 4.6%, falls into the other category, often driven by parental

preparation of foreign dishes at home. This research underscores that while TV programs exert some influence on the selection of fast food, the majority of adolescents, totaling 95.4%, are driven by other factors.

Table 7 Their daily inclination toward consuming foreign cuisine.

| Their daily inclination toward consuming foreign cuisine | | | | | |
|--|-------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Yes | 90 | 69.2 | 69.2 | 69.2 |
| | No | 40 | 30.8 | 30.8 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

The findings in Table 7 depict the survey results concerning the proclivity for daily intake of foreign cuisine. It is evident that a significant majority, accounting for 69.2% of the adolescent, express a desire to include foreign dishes in their daily diet, while the remaining 30.8% adhere to traditional food options daily. This data reflects a growing trend towards the regular intake of fast food among adolescents, with many displaying a preference for it without experiencing immediate discomfort. However, the long-term health and physiological implications of dietary choices remain a subject of concern.

Table 8 The frequency of taking foreign cuisine weekly

| The frequency of taking foreign cuisine weekly | | | | | |
|--|----------------------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Less than one day weekly | 37 | 28.5 | 28.5 | 28.5 |
| | One day per week | 34 | 26.2 | 26.2 | 54.6 |
| | 2-4 days per week | 18 | 13.8 | 13.8 | 68.5 |
| | 5-6 days | 14 | 10.8 | 10.8 | 79.2 |
| | Everyday once | 3 | 2.3 | 2.3 | 81.5 |
| | Every day twice | 8 | 6.2 | 6.2 | 87.7 |
| | Every day, more than twice | 7 | 5.4 | 5.4 | 93.1 |
| | Others | 9 | 6.9 | 6.9 | 100.0 |
| | Total | 130 | 100.0 | 100.0 | - |

The frequency of weekly intake of foreign cuisine among the surveyed adolescents is presented in (Table 8). The data reveals diverse patterns: 28.5% of adolescent consume fast food less than once a week, while 26.2% indulge in it once a week. Additionally, 13.8% enjoy foreign cuisine 2-4 times a week, and a minority of 2.3% partake in its daily. Notably, 6.2% of adolescent relish fast food twice daily. Finally, 5.4% of adolescent savor foreign dishes more than twice a day, amounting to a weekly consumption frequency. These findings highlight the varying affinity for foreign cuisine within the adolescent population.

This analysis, augmented by statistical assessments, reveals the substantial daily engagement of adolescents with television, which constitutes their primary entertainment source. On average, they allocate one to two daily hours to diverse programs encompassing cartoons, news, dramas, and more, interlaced with food-related advertisements. These advertisements prominently feature various consumables, including soft drinks, fast food, pasta, noodles, fried rice, ice cream, chocolate, pizza, tea, burgers, cakes, biscuits, and other delectable items. Exposure to these enticing food commercials frequently engenders cravings.

Consequently, adolescents actively pursue and acquire such food items independently or through social networks. When venturing outside their homes, they manifest a distinct propensity for fast food options despite well-documented health risks. Immediate sensory gratification holds considerable allure, often outweighing long-term health considerations. This juxtaposition underscores a conspicuous disconnect between dietary advice and actual consumption patterns, primarily propelled by sensory appeal and cultural exposure via television advertising. Survey results indicate a growing preference for foreign cuisine, with 69.2% of adolescents desiring daily inclusion of fast foods, while 30.8% favor traditional foods.

Parental influence looms large, with 98% of adolescents reporting parental disapproval. Adolescent food preferences intertwine with peer choices, often selecting foreign foods, particularly outside their homes. Food preferences primarily pivot on taste and cultural context, superseding biological necessity. Mass media programs, encompassing advertisements and chosen programs, significantly shape these preferences. This research aims to assess the roles of mass media, parental influence, and NGOs in

promoting teenage health awareness. Government contributions, chiefly evident in textbooks featuring extensive chapters on health and dietary choices, include disseminating health information through television advertisements and newspapers. Healthcare professionals and educators also play pivotal roles in teenage health education.

5. CONCLUSION

In summary, this research underscores the potent impact of mass media on adolescent dietary preferences, as observed in the Keraniganj, Dhaka study. The empirical analysis highlights the pivotal role of mass media in shaping immature urban culinary choices. Adolescents avidly consume diverse media content, including food-related advertisements, influencing their food selections. This media-induced influence operates independently of intergenerational family dynamics. Promoting media literacy and disseminating health-conscious messages through media platforms are essential to address these findings. This research underscores the intricate interplay between mass media and adolescent food choices, advocating for a multidimensional approach to foster healthier dietary habits in the digital age.

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Authors' Contributions

Md Faisal Alam: Conceptualization, Methodology, Data Collection, Formal Analysis, Writing - Original Draft, Visualization.

Md Jahan Boksh Moral: Conceptualization, Methodology, Writing - Review & Editing, Supervision, Project Administration.

Each author has contributed significantly to the research, and their collective expertise has enriched the quality and depth of this publication.

Disclosures

The authors declare no conflicts of interest related to the research, including financial, personal, or professional affiliations, that could potentially influence or bias the outcomes, analysis, or interpretation of the research findings presented in this publication. This research was conducted with full transparency and adherence to ethical standards.

Informed consent

Not applicable.

Ethical approval

Not applicable.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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Data and materials availability

All data associated with this study are present in the paper.

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